

IN THE CLAIMS:

1. (Currently amended): A method for determining parameters needed to communicate with a remote node in a computer network, the method comprising:

compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

receiving a service request from a client, the service request specifying a requested service;

looking up the queue pair number associated to the requested service;

replying to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service; and

registering the network nodes with a central server, wherein the central server contains the queue-pair-number map and looks up the queue pair number associated to the requested service using the queue-pair-number map in response to receiving the service request from the client.

2. (Canceled)

3. (Currently amended): A method for determining parameters needed to communicate with a remote node in a computer network, the method comprising:

compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

receiving a service request from a client node, the service request specifying a requested service;

looking up the queue pair number associated to the requested service;

replying to the client node by the remote node, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service; and

initiating at least one of the network nodes with the queue-pair-number map.

4. (Currently amended): ~~The method according to claim 1, further comprising:~~ A method for determining parameters needed to communicate with a remote node in a computer network, the method comprising:

compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

receiving a service request from a client;

looking up the queue pair number associated to the requested service;

replying to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service;

registering the network nodes with a central server, wherein the central server contains the queue-pair-number map;

receiving a second service request from the client, wherein the second request is addressed to the queue pair number included in the first reply;

associating a new queue pair number with a new dynamic instance of the requested service; and

returning a second reply to the client, wherein the second reply includes the new queue pair number.

5. (Currently amended): A method for determining parameters needed to communicate with a remote node in a computer network, the method comprising:

associating a service hosted by the remote node with a well-known queue pair number, wherein the well-known queue pair number corresponds to at least one well-known port in the remote node;

receiving a service request from a client node, wherein the request is addressed to the well-known queue pair number; and

replying to the client node, wherein the reply contains attributes necessary for communication with the requested service at the remote node.

6. (Original): The method according to claim 5, wherein the well-known queue pair number corresponds to all well-known ports in the node.

7. (Original): The method according to claim 5, wherein the well-known queue pair number corresponds to well-known ports which are specified as the least used well-known ports in the node.

8. (Currently amended): ~~The method according to claim 5~~ A method for determining parameters needed to communicate with a remote node in a computer network, the method comprising:

associating a service hosted by the node with a well-known queue pair number, wherein the well-known queue pair number corresponds to at least one well-known port in the node;

receiving a service request from a client, wherein the request is addressed to the well-known queue pair number; and

replying to the client, wherein the reply contains attributes necessary for communication with the requested service, wherein the reply returned to the client includes a new queue pair number which differs from the well-known queue pair number, wherein the new queue pair number is used by the client for subsequent communication with the service.

9. (Currently amended): A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

instructions for compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

instructions for receiving a service request from a client, the service request specifying a requested service;

instructions for looking up the queue pair number associated to the requested service;

instructions for replying to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service; and

instructions for registering the network nodes with a central server, wherein the central server contains the queue-pair-number map and looks up the queue pair number associated to the requested service using the queue-pair-number map in response to receiving the service request from the client.

10. (Canceled)

11. (Currently amended): A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

instructions for compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

instructions for receiving a service request from a client node, the service request specifying a requested service;

instructions for looking up the queue pair number associated to the requested service;

instructions for replying to the client node by the remote node, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service; and

instructions for initiating at least one of the network nodes with the queue-pair-number map.

12. (Currently amended): ~~The computer program product according to claim 9, further comprising:~~ A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

instructions for compiling a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

instructions for receiving a service request from a client;

instructions for looking up the queue pair number associated to the requested service;

instructions for replying to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service;

instructions for registering the network nodes with a central server, wherein the central server contains the queue-pair-number map;

instructions for receiving a second service request from the client, wherein the second request is addressed to the queue pair number included in the first reply;

instructions for associating a new queue pair number with a new dynamic instance of the requested service; and

instructions for returning a second reply to the client, wherein the second reply includes the new queue pair number.

13. (Currently amended): A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

instructions for associating a service hosted by the remote node with a well-known queue pair number, wherein the well-known queue pair number corresponds to at least one well-known port in the remote node;

instructions for receiving a service request from a client node, wherein the request is addressed to the well-known queue pair number; and

instructions for replying to the client node, wherein the reply contains attributes necessary for communication with the requested service at the remote node.

14. (Original): The computer program product according to claim 13, wherein the well-known queue pair number corresponds to all well-known ports in the node.

15. (Original): The computer program product according to claim 13, wherein the well-known queue pair number corresponds to well-known ports which are specified as the least used well-known ports in the node.

16. (Currently amended): ~~The computer program product according to claim 13~~ A computer program product in a computer readable medium for use in a data processing system, for determining parameters needed to communicate with a remote node in a computer network, the computer program product comprising:

instructions for associating a service hosted by the node with a well-known queue pair number, wherein the well-known queue pair number corresponds to at least one well-known port in the node;

instructions for receiving a service request from a client, wherein the request is addressed to the well-known queue pair number; and

instructions for replying to the client, wherein the reply contains attributes necessary for communication with the requested service, wherein the reply returned to the client includes a new queue pair number which differs from the well-known queue pair number, wherein the new queue pair number is used by the client for subsequent communication with the service.

17. (Currently amended): A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

a compiler which compiles a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

a receiver which receives a service request from a client, the service request specifying a requested service;

a look-up component which looks up the queue pair number mapped to the requested service;

a response component which replies to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service; and

a registration component which registers the network nodes with a central server, wherein the central server contains the queue-pair-number map and looks up the queue pair number associated to the requested service using the queue-pair-number map in response to receiving the service request from the client.

18. (Currently amended): ~~The system according to claim 17, further comprising:~~ A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

a compiler which compiles a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

a receiver which receives a service request from a client;

a look-up component which looks up the queue pair number mapped to the requested service;

a response component which replies to the client, wherein the reply includes:

the address of the node hosting the requested service; and

the queue pair number associated with the requested service;

a registration component which registers the network nodes with a central server, wherein the central server contains the queue-pair-number map;

a second receiver which receives a second service request from the client, wherein the second request is addressed to the queue pair number included in the first reply;

a processing component which associates a new queue pair number with a new dynamic instance of the requested service; and

a second response component which sends a second reply to the client, wherein the second reply includes the new queue pair number.

19. (Currently amended): A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

an associating component which associates a service hosted by the remote node with a well-known queue pair number, wherein the well-known queue pair number corresponds to at least one well-known port in the remote node;

a receiver which receives a service request from a client node, wherein the request is addressed to the well-known queue pair number; and

a response component which sends a reply to the client node, wherein the reply contains attributes necessary for communication with the requested service at the remote node.

20. (Currently amended): A system for determining parameters needed to communicate with a remote node in a computer network, the system comprising:

a compiler which compiles a queue-pair-number map, wherein the map associates unique queue pair numbers with services hosted by network nodes;

a receiver which receives a service request from a client node, the service request specifying a requested service;

a look-up component which looks up the queue pair number mapped to the requested service;

a response component which replies to the client node by the remote node, wherein the reply includes:

the address of the node hosting the requested service; and
the queue pair number associated with the requested service; and
an initiation component which initiates at least one of the network nodes with the queue-pair-number map.